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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/857,209 | 06/22/2001 | Yuko Tachibana | 209663USPCT | 6187 |

22850 7590 07/17/2002

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EXAMINER

PIZIALI, ANDREW T

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1775

6

DATE MAILED: 07/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

MF-4

| | | | |
|------------------------------|--------------------------------------|---|--|
| Office Action Summary | Application No. 09/857,209 | Applicant(s) TACHIBANA ET AL. | |
| | Examiner Andrew T Piziali | Art Unit 1775 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/22/2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☒ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4,5</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Oath/Declaration

1. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because: The title on the oath does not match the title of the patent application.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 8 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification discloses that the resin film having a near-infrared shielding property comprises a near-infrared absorbent mixed in a resin (page 17, lines 3-7). The specification discloses only one near-infrared absorbent, SIR 159, but fails to supply a description of the composition of SIR 159 (page 32, lines 4-11). It is not clear to one of ordinary skill in the art what SIR 159 consists of or what other possible near-infrared absorbent materials may be used.

Therefore, the specification is not enabling for a resin film having a near-infrared shielding property.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-6 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Publication Number 07-043524 to Hironobu et al.

Regarding claims 1-6 and 10, Hironobu discloses an article which comprises a substrate, first transparent dielectric film (2) that may comprise titanium oxide, a second transparent dielectric film (3) that may comprise silicon oxide, a metal or metal nitride layer (4) that may comprise silver, copper or gold, and a third transparent dielectric film (5) that may comprise titanium oxide [0008].

Regarding claim 2, Hironobu does not mention the refractive index of titanium oxide layers, but considering that the applicants' specification discloses that titanium oxide alone may be used for the titanium oxide layers (page 10, lines 7-14) the titanium oxide layers of Hironobu would inherently possess a refractive index of at least 2.4 at a wavelength of 550nm.

Regarding claim 4, Hironobu does not specifically give a thickness range for the second transparent dielectric layer, but does give an example configuration including a second transparent dielectric layer thickness of 15nm [0011].

Regarding claim 6, Hironobu does not give the specific sheet resistance value, visible light transmittance or the visible light reflectance, but considering the substantially identical article of Hironobu, compared with the applicants' article, these properties would be inherent.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hironobu as applied to claim 1 above, and further in view of US Patent No. 6,074,732 to Garnier et al.

Regarding claims 7 and 9, Hironobu discloses that the glass article may be laminated and may be used for vehicle windows [0001], but fails to mention laminating with a resin film. Garnier discloses that it is known in the art to laminate a vehicle window with a layer of PET to increase the shattering resistance (column 6, lines 64-67 and column 7, lines 1-5). It would have been obvious to one having ordinary skill in the art at the time the invention was made to laminate the glass article of Hironobu, with a layer of PET, as disclosed by Garnier, because the PET layer increases the shattering resistance.

Regarding claim 9, considering the substantially identical laminate of Hironobu in view of Garnier, compared to the applicants' laminate, the visible light reflectance would be at most 3%.

8. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hironobu as applied to claim 1 above, and further in view of US Patent No. 5,723,075 to Hayasaka et al.

Regarding claims 7-9, Hironobu discloses that the glass article may be laminated and may be used for vehicle windows [0001], but fails to mention laminating with a resin film. Hayasaka discloses a resin with a near-infrared absorbent and further discloses that the resin may be deposited on a desired substrate to endow the substrate with a near-infrared absorbing property (column 14, lines 21-35). It would have been obvious to one having ordinary skill in the art at the time the invention was made to laminate the glass article of Hironobu, with a layer of resin with a near-infrared absorbent, as disclosed by Hayasaka, because the resin would endow the substrate with a near-infrared absorbing property which would be desirable in applications requiring low reflectance.

Regarding claim 9, considering the substantially identical laminate of Hironobu in view of Hayasaka, compared to the applicants' laminate, the visible light reflectance would be at most 3%.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T Piziali whose telephone number is (703) 306-0145. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (703) 308-3822. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703) 827-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-5665.



atp
June 25, 2002

Andrew T Piziali
Examiner
Art Unit 1775



DEBORAH JONES
SUPERVISORY PATENT EXAMINER